1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

hours tumultuous waves come and go sporadically, while about the mile-wide boca the choppy sea sometimes takes the form of spire-like jets, spurting 5 or 10 feet high and breaking into aigrettes of glittering spray in most unwaterlike and wholly indescribable fashion. Dewey described the strait as "unsafe for navigation by any except the smallest class of vessels"; it is safe, indeed, only for portable and indestructible craft like the Seri balsas, which may be put off or carried ashore at will by craftsmen willing to wait for wind and tide, and unpossessed of impedimenta of a sort to be injured by wetting. Of such an environment the balsa is a natural product.

The adjunct islets of Seriland are miniatures of Tiburon in all essential respects, save that they are without fresh water. The largest is San Esteban, a somewhat complex butte rising sharply from the waters in a nearly continuous sea-cliff recording vigorous work by storms and tides; it is occasionally visited by the Seri, chiefly in search of water-fowl and eggs. The most important of the series in Seri economy and mythology is Isla Tasnae, off the mouth of Bahia Kino; it is a rugged butte some 600 feet high, rising in wave-cut cliffs on the sea side and pedimented by low spits and banks of sand toward the lea; the sand-banks are literally flocked with pelicans, while other fowl cover the flatter ledges and crowd the crannies of the pinnacle. Isla Turner is a somewhat smaller and still more rugged butte, bounded on both sides by precipitous cliffs, while Roca Foca is merely a great rock shelving upward from the storm-swept waters off the most exposed angle of Tiburon; in the crannies of the former birds nest abundantly, while the lower ledges of both are haunted by seals. Isla Patos, north of Tiburon, is a breeding-place for different water-fowl, and is especially noted as a refuge for ducks; it, too, is for the most part a rocky butte, with a sandy shelf at the eastern base. Beyond San Esteban lies the similar but smaller Isla San Lorenzo, while Isla Salsipuedes and a few other islets stretch thence northward half way to the southern point of Isla Angel de la Guarda, the second-largest island of the gulf. San Lorenzo and the smaller islets are occasionally visited by the Seri, partly for a mineral pigment used in face-painting, partly in quest of game; and they sometimes push on to the larger island to enjoy its fairly abundant game, including the easily taken iguana, amid the ruins of an ancient culture apparently akin to that of southern Mexico. Even the most frequented islets, Tasnae and Patos, can be reached only by crossing miles of open sea; but in their way the Seri are as canny navigators as they are skilful boat-builders—it is their habit to hug the shore in threatening weather, to await wind and tide for hours or days together, to set out on distant journeys only when all conditions favor, and in emergency to seize inspiration from the storm like the vikings of old, and bend supernormal power to the control of their craft.

Summarily, the prevailing features of Seriland may be said to be

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

13 characterized by extreme development or intensity, many of them being of such sort as to be adequately described only by the aid of strong comparatives or superlatives. Seriland is the most rugged portion of piedmont Sonora, and is bounded by its most forbidding desert; the territory is nearly if not quite the most arid and inhospitable of the Sonoran province; the diurnal and sporadic temperature-ranges are apparently the widest, and the gales and other storms apparently the severest of the entire province; the flora is among the most meager and least fruitful, and the mountains are among the craggiest of the continent; the tides are among the strongest and the tidal currents among the swiftest of the world; and, as shown by the limited direct observations and by the extraordinary marine transgression, the waters are among the most turbulent known. At the same time, the waters washing Seriland are among the richest of America in sea-food, so that the habitat is one of the easiest known for a simple life depending directly on the product of the sea. It is but natural that these extreme factors of environment should be measurably reflected in pronounced characteristics on the part of the inhabitants.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

000 and groups; the linguistic activities serve to extend social relations in space and time, and the sophic activities to integrate and perpetuate all relations; but it is through the industrial activities that human intelligence interacts with physical nature and makes conquest of the material world. Accordingly, industries act as a steady and never-ceasing stimulus to intelligence; accordingly, too, the industrial activities afford the simplest and surest measure of intellectual advancement.

Under this view of the place of industrial activities in human phylogeny, certain phases of Seri technology acquire importance and especial significance.

105 177 1. One of the most conspicuous features of Seri craft is its local character. The foodstuffs, the materials for apparelling and habitations, and the substances utilized in the several lines of simple handicraft are essentially local; moreover, the characteristic methods and devices evidently reflect local environmental conditions. There are, indeed, a few phenomena suggesting, and a still less number demonstrating, extraneous origin; the balsa and the kilt are sufficiently similar to devices of other districts to suggest, though not to prove, genetic identity (indeed, the sum of indications of local origin is much weightier than the several suggestions of extraneous derivation); the iron harpoon-points and arrow-tips are mainly of local flotsam, and are essentially provincial in modes of employment; the chipped stone arrow-tips, though local in material, are foreign in motive; but on summarizing the industrial phenomena, it would appear that by far the greater share are essentially local, while the few of exceptional (and extraneous) character can be pretty definitely traced to importation through the social interactions of recent centuries.

105 182 13 2. An equally conspicuous feature of the industrial craft of the Seri is the dominance of chance in both processes and devices. The traditional "fisherman's luck" is made exceptionally uncertain by the sudden gales and shifting currents of Seriland shores, while the absolute necessaries of life on land are still more capricious than those alongshore; this uncertainty of resources has profoundly affected the somatic features of the tribesman, as indicated elsewhere (ante, p. 159); and that the mental attributes of the folk are even more profoundly affected is attested by the rôle played by chance in the selection and shapement of the prevailing tools of stone and shell. The large rôle of chance in Seri life is also revealed, though less directly, in the overweening [771] mysticism of zoötheistic faith, with its material reflection in zoömimic craft.

3. When the local and fortuitous features of the Seri industries are juxtaposed they are found to express a notably inchoate or primitive stage of industrial development. In both the local and the fortuitous or accidental aspects, the activities are so closely adjusted to the immediate environment as to approach the instinctive agencies and movements of bestial life, and correspondingly to diverge from the composite

1: McGee E-5 (1894-1895)1896 NU31 Seri NU31

and cosmopolite characters of higher humanity; the dearth of extraneous devices denotes absence or intolerance of that secultural interchange accompanying and marking the progress of peoples; and the dearth of inventions denotes feebleness of creative faculty and absence of that self-confidence which accompanies and measures progress in nature-conquest. 105 13 182 [177]

4. When the local and fortuitous features of the Seri craft are viewed in their serial or sequential relations, they are found to reflect and attest autochthonal development. Excepting the few secultural processes and devices whose acquisition may confidently be traced to certain social interactions of the historic period, the Seri technic is too closely tied to local environment to warrant any supposition of importation from other districts. The question of the birthplace of the people may be left open in this case as in every other; but the birthplace of practically all those activities and activital products which define the folk as human was manifestly Seriland itself—so that the tribe, considered as a human folk rather than as a zoic variety, must be classed as autochthonous. 105 177

Summarily, then, the Seri industries are significant as (1) local, (2) fortuitous, (3) primitive, and (4) autochthonous; and these features combine to illumine a noteworthy stage in primitive thought. 105

5. On juxtaposing these significant features of Seri technic, they are found to reflect the tribal mind with noteworthy fidelity, and hence to indicate the sources of Seri mentations, and of the local culture in which these mentations are integrated. The local foodstuffs—especially that vital standard of values in arid regions, water—are perhaps sources of the strongest aspirations and inspirations of industrial life, and the methods and devices for food-getting are but the legitimate offspring of the inevitable relation between effort and environment; the conspicuous rôle of chance is but the composite of the hard and capricious environment on the one hand, and of the lowly thought reflecting that environment on the other hand; the zoic faith into which the magma of recurrent chance has semicrystallized finds carnate symbols either in local beasts or in fantastic monsters suggested by those beasts; even the mating instinct, second only to thirst among the impelling action-factors of the folk, is so profoundly and bitterly provincial as to exclude foreign ideals to a degree unparalleled among known peoples. The industrial materials are local—but not more local than the thoughts in which they are reflected; the technical methods are unmistakably the offspring of the environment—but they are equally the offspring of minds reflecting that environment and no other; the few and simple devices stand for integrations of experiences, instinctive rather than ratiocinative, the germ of invention rather than even its opening bud—but the experiences bear the marks of that environment and no other. Accordingly, the mental side of Seri industry, and, indeed, of all Seri life, appears to be the counterpart of the physical side. 13 181 182

2: Kroeber E-5 (1930)1931 NU31 Seri NU31

SUMMARY AND CONCLUSIONS

121 Knowledge of the Seri is still in its infancy. McGee's actual
114 observations are excellent but slender in range. He has interwoven them with conjectures, some of which are erroneous and others unproved and doubtful. Intensive study of the Seri will be difficult, chiefly for physical and practical reasons, but, to judge from such explicit data as are in hand, should prove them to be a tribe unusually interesting indeed, yet fundamentally similar to others in the same region. So many of their known traits are shared with one or another of these tribes, that it is practically precluded that complete investigation will leave the Seri as a unique people or even as one set widely apart, except in their historical fortunes.

● 13 The most distinctive thing about the Seri is their environment.
182 This is extremely arid and lacking in water supply, but not desert in the ordinary, untechnical sense. Botanists describe it as a succulent vegetation desert. It is fairly well stocked with food inland and rich in food along shore. This territory is able to support a fair sized population, but scatters it and keeps it from settling down. The land is also inhospitable and difficult to strangers who are not ready to adopt the Seri mode of life. This fact has helped preserve Seri ethnic integrity and culture to an unusual degree. A considerable fraction of original Serian territory is wholly unoccupied by civilization today, a full three centuries after its frontier was settled. The Indian neighbors of the Seri, all being farmers in fertile valleys, had no more incentive or ability than Caucasians to penetrate Seri territory sustainedly.

Across the Gulf, the peninsula of California presents a very
171 similar environment, and was inhabited by tribes of very similar
174 subsistence and residential habits, culture level, and temperament. But the Baja Californians differed from the Seri in being so situated, with reference to the rest of the world, that the length of the peninsula cut them off, except in the northern portion, from nearly all outside relations. Each group in the peninsula thus had contacts and stimuli only from others of similar culture. The Seri, on the contrary, having long been surrounded on the landward side by peoples of higher cultural level, were able to exploit this difference, in part by adopting cultural traits from their neighbors; and perhaps still more largely by preying upon them economically; while their habitat afforded them a refuge from destructive reprisals. Such may have been the condition in pre-Columbian days. At any rate it has been such since the coming of the Spaniards, and has made the "history" of the Seri different from that of the Baja Californians.

174 Three islands, Tiburon, San Estehan, and San Lorenzo, form stepping stones from Seri mainland to the peninsula. The water gaps between them are navigable to native craft and have been navigated

6: Mexico--1 E-5 (1952) 1953 NU31 Seri NU31

Seri Social Structure (1)

1. The material presented here was collected on a three-week visit to the Seri zone, the costs of which were defrayed by the I.N.A.H. [Instituto Nacional de Antropología e Historia], for the purpose of planning later investigations. It took place in January, 1952, in the company of Mr. Paul Finninger of M.C.M. [Mexico City College].

The permanent system of interacting influences that is presented among the Seri is of great scientific interest for its extreme characteristics of geographic isolation, environmental hostility, poverty, and the small size of the community.

The Seri occupy coastal territory in Sonora on the Gulf of California; formerly they covered a territory that toward the end of the 18th century, along the coast extended from Guaymas Bay, including it, to Punta Peñasco and, on the mainland, included the area in the vicinity of the present city of Hermosillo. They have been reduced little by little, now occupying only some isolated points on Cape Tepoca, Desemboque, and Tiburón Island, places from which, in spite of their inclemency, they are also being displaced.

Until some 30 years ago, most of the contacts of the Seri with Western culture had been warlike, ferociously defending their skins from the attacks of the yori (Mexican) invaders. Their contacts with the natives have been with the Yaqui, Papago, and those of Santa Rosalía (crossing the gulf). It was not until about 20 years ago, when the establishment of fishing camps was initiated with mestizo capital, that a new orientation in the treatment of the Seri came into being. Existing side by side with them at present are various Mexicans who exploit the products of Seri fishing, and some scientific investigators, principally from the United States.

They form enclaves in the heart of Aridamerica, with its cactus, shrubs and grasses, without flowing water, and with abundant flying and, especially, marine fauna.

8: Ascher E-5 (1960) 1962 NU31 Seri NU31

Elsewhere (Ascher 1961) I have disputed this portrayal of the potential of existing ethnography, citing examples where qualitative and quantitative models have been constructed from ethnography and suggesting that one task for archeology is to codify the literature in a manner useful to itself. Regardless of doubts about existing ethnographies for archeological purposes, the worth of future ethnography for archeology will depend on the acquisition of the relevant kinds of information. Although discussion on the subject has been recorded (Tax *et al.* 1953: 229-232), no specific guides have been produced. This paper provides and discusses an example, which can be used as a paradigm, model, or guide of the kind of information to be collected from ongoing communities which would be of general value for archeology. The subject culture is that of the Seri Indians of Sonora, Mexico; the example describes a persistent trait complex associated with fishing for the Pacific green turtle, with particular emphasis on one trait in the complex, the harpoon foreshaft.

Example from the Seri Indians

The Seri, who numbered approximately 200 individuals in 1960, occupy a band of coastal desert about four miles wide and seventy miles long in the state of Sonora in western Mexico. The band extends along the Gulf of California from Kino Bay in the south to Desemboque in the north, opposite the largest island in the Gulf, Tiburon. Although the region is desert, with an estimated average rainfall of less than eight inches per year, falling mostly in July and August, it is comparatively rich in succulents and small land mammals. The Gulf forms a natural trap for large fish and marine mammals and is a breeding ground for the Pacific green turtle. The scantiness of fresh water has constituted, in the past and present alike, the single crucial limiting factor to agriculture and human occupancy.

In the past the Seri may have comprised from four to six tribal groups, and they were certainly numerically larger, with a maximum estimated population of 2,000 (Kroeber 1931: 53, 30). Until very recently they also occupied Tiburon Island, and at some more remote period they extended south, north, and east over a territory whose bounds are uncertain (Kroeber 1931: 5). On the basis of linguistic change, Kroeber (1931: 54) calculated that the Seri could have inhabited this general region for 1,000 years. It is uncertain whether the original occupation stemmed from Baja California via the Gulf of California or from the north and west via an overland route or routes (Kroeber 1931: 39-51). The first contact with Europeans occurred as early as 1540 (McGee 1898: 51).

In culture content the Seri are most closely affiliated with the Pima (Kroeber 1931: 51), but they do not share the practice of agriculture with them or with their western neighbors. The Seri are primarily fishermen; secondarily they gather the fruits of succulents; and to a still lesser extent they hunt game. McGee (1898: 214)

9:Malkin E-5 (1953-1955)1962 NU31 Seri NU31

I

INTRODUCTION

localities, but I think it is advisable to include others, whose nature is not so different from the main places of Seris' habitations.

I have selected then 25 localities and I shall give their main characteristics below:

1. **Punta Peñasco** — a village along the upper shores of the Gulf of California, close to the U.S., connected by a paved highway from Gila Bend. Typical Sonoran zone with extensive sand flats. Very rarely visited by the Indians.

2. **Porto Libertad** — rocky shores, located some 30 miles north of Desemboque. A Mexican village frequently visited by the Seris.

3. **Desemboque** — Seris' main settlement after 1940, just north of and around Punto Tepopa, only a few miles from Tiburon. A narrow strip of poor land, thoroughly permeated with alkali and salt. Vegetation is very sparse. The mesquite, elephant bush, creosote bush, *Cholla* and *Sahuaro* are the main trees. No *Palo Verde* or *Palo Fierro*. *Ocotillios*, *Sahuaros* and mesquite are stunted and scarce, only toward the mountains increasing in frequency and size. Along the shores, sand dunes with kitchen middens, partly covered by vegetation. An arroyo nearby is empty except on a few occasions during the year when flash flood after rains rushes through. Rainfall very scarce. During the summer of 1953 I spent there, it rained very little—only twice and that was short and feeble. Water is obtained from a well, near which there is a Mexican ranch where, owing to irrigation, some vegetables are grown and weeds are present such as *Datura*. The coast is largely rocky. Narrow beaches lack wide sand bars. Hence the fauna here is poor.

4. **Estero Sargente** — alkali flats and mud flats some 25 km. south of Desemboque along the coast. Vegetation very scarce. *Sahuaros* and *Ocotillios* and other desert trees grow some distance from the shore. Short grasses in some places clump the coastal dunes. Breeding and feeding place of many shore birds, especially of willets and egrets. On the alkali flats near the shore are many peculiar insects, not found in Desemboque, particularly tiger beetles and Oedemerids.

5. **Campo Vivora** — little more than half way down toward Desemboque from Estero Sargente, also along the coast. So named after supposedly numerous rattlesnakes. Clumpy grasses. Favorite encampment of the Seris and others while fishing and hunting turtle. The only loggerhead turtle I have seen was right here.

6. **Porto Kino** — fishing village directly due east of Hermosillo, nowdays connected with Sonora's

9:Malkin F-5 (1953-1955)1955 MU31 Seri MU31

361 capital by paved road. Formerly, in the twenties and early thirties, Seris' chief mainland settlement. Now with the influx of the Mexicans, the Seris deserted the place completely as a camp site, although they still visit it occasionally. Distinct in the extensive sand beaches and sand marine flats which harbor peculiar bird, fish and insect fauna.

7. **Guaymas**—southernmost point considered here and probably also of the Seris' historical extension. Nowadays very rarely visited by them and probably only while cruising with the Mexicans. Large settlement, many tourists. Backlands; rocky desert.

8. **Tepopa**—spectacular rocky head just south of Desemboque, opposite to Tiburon. Caves, usual mountainous vegetation, *Sahuaro*. Many Seri hunting encampments and one of the places where the Sonoran bighorn is still hunted.

9. **Coast of Baja California**—very rocky area across the bay—almost never visited by the Indians.

10. **Tiburon**—island in the Gulf of California separated from the mainland by a narrow channel called "Infernillo," only a mile wide. Rugged, mountainous. By **Tiburon** is meant an overall island area in distinction from **Tecomate** or the mountains.

11. **Tecomate**—a water-hole and Seri campsite on the northern shore of Tiburon. Today this is the only permanent site on the island where these Indians, actually only a few families among them, still go to live for part of the year.

12. **Mountains of Tiburon**—rugged interior of the island, reaching up to almost 4000 feet. Usual vegetation cover with *Sahuaro* and other typically Sonoran floral components, fauna much as on the mainland except lacking cougar, bighorn and some other larger forms. The interior does have some "tenajas," that is water-holes and there is said to be a rivulet up in the mountains.

13. **Infernillo**—narrow channel between Tiburon and the mainland, often called locally "canal." For the terrestrial fauna and for birds reference is made to the mainland shores of Infernillo. For the marine fauna is meant either the open water in this channel or to the littoral off the mainland. The opposite shores and littorals are covered as "Tiburon." Maximum depth is said to be up to 25 fathoms.

14. **Isla Patos**—small island north of Tiburon and directly due west of Estero Sargente and halfway between Tiburon and Punto Tepopa. Visited by the Indians only occasionally, mostly in connection with the duck hunt.

15. **Isla Raza**—a small island between Angel de la Guarda and San Lorenzo.

16. **San Esteban Island**—a round island between Tiburon and San Lorenzo, up to 1700 feet elevation. Visited occasionally during fishing or turtle hunt trips or in search of a chuckawalla.

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9:Malkin E-5 (1963-1965)1962 NU31 Seri NU31

●13 17. **San Lorenzo Island** — a narrow long island along the coast of Baja, California, and opposite to Tiburon. Altitude up to 1200 feet. Fauna limited, owing to the distance from the mainland. Vegetation much as elsewhere but impoverished. Visited incidentally as is San Esteban.

18. **Angel de la Guarda** — large island along the coast of the peninsula, longer but narrower than Tiburon, slightly lower at its highest point, pretty much waterless. Vegetation as elsewhere, fauna limited. Visited by the Seris very rarely.

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19. **Desemboque (Mountains)** — high mountains immediately back of Desemboque, 5 miles away, rising perhaps to 1200 feet. Vegetation much richer than in Desemboque, with giant *Sahuaro* growing to considerable size. More moisture than immediately near the sea-shore. Full Sonoran fauna with cougar and bighorn. Frequently visited during hunts.

20. **Tepopa (Mountains)** — in distinction from Punto Tepopa as a whole, this refers only to the rugged head. The mountain reaching to over 1800 feet. Thus by Punto Tepopa are meant only the shores and the littoral.

21. **Buena Vista** — a ranch inland on the way to Hermosillo, newly deserted. Water present in the large well and periodically in the dry river. Willows, large mesquite, Palo Verde, etc. Now only incidentally visited by the Seris but formerly of some importance as a camp site.

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22. **San Francisco de Costa Rica**—a ranch inland halfway between Kino and Hermosillo near the main road, presently a large Mexican ranch. Formerly a frequent Seri campsite. The distinctive feature of this locality is extensive sandy areas with very peculiar fauna.

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23. **Hermosillo**—capital of Sonora of some 40,000 people. Extensive agriculture, irrigation, river and water-dammed reservoir and cattle and cotton ranges. Once the Seris ranged almost as far as this town but presently they come here only on special business, to the hospital or for a ride to town, with the Mexican truckers. Their observations in Hermosillo are only incidental.

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[484] 24. **Nogales**—U.S.-Mexican frontier town. Seris come here very rarely and only certain individuals. Observations less than incidental.

25. **Campo Utah** — large track of irrigated flat lands given up to cotton, operated by the Utah Construction Company between San Francisco and Hermosillo. Somewhat off the main road. Selected as a distinct region owing to the irrigation and cotton fields with their ecological peculiarities. Seris visit this only in transit or on most unusual occasions when they work a few days for the Mexicans.

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The Problem

121 The basic problem concerns the state of Seris' zoological knowledge, that is the general knowledge of the natural history of animals in its main outlines; of their ecology, habits, reproduc-

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